gena. **METODOLOGÍAS:** Análisis transversal con información de expedientes clínicos de 488 usuarias de los servicios estatales de salud. Se realizó un microcosteo y se estimaron los costos de la utilización de recursos, desde la perspectiva del sector salud. Se realizaron pruebas estadísticas tipo X^2 de Pearson y prueba t para identificar diferencias en las variables de estudio. Los costos se expresan en pesos mexicanos del 2012. Se realizaron entrevistas semi-estructuradas a usuarias y actores de niveles estratégicos, tácticos y operativos involucrados en el diseño e implementación de modelos interculturales en salud materna en ambos estados. **RESULTADOS:** El 66% de las mujeres eran indígenas. 80% de los costos se concentraron en consultas y hospitalización. El costo promedio por este concepto fue de $4188 (modelo convencional) y $4002 (modelo intercultural). Se identificaron dos principales modelos interculturales: el parto vertical y la vinculación entre parteras tradicionales y prestadores de servicios. Existen divergencias entre las expectativas de las usuarias y sus familiares y los actores involucrados en el diseño e implementación de las intervenciones interculturales y escasa conciencia entre prestadores de servicios y tomadores de decisiones sobre la complejidad del significado de la atención intercultural en salud materna. **CONCLUSIONES:** Incorporar elementos interculturales en la atención al parto vaginal, no añade costos adicionales al sector salud, mientras sí puede asociarse con mayor aceptación de las usuarias. Se requiere una mayor coordinación entre los actores, para la implementación efectiva de intervenciones interculturales, en apoyo a las estrategias de reducción de la mortalidad materna.

INFECTION – Clinical Outcomes Studies

PIN1
DYNAMIC MODELING OF VECTOR-BORNE DISEASES (VBD): THE EXAMPLE OF MALARIA

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BACKGROUND: VBD, such as Chagas disease, dengue, or malaria, are transmitted from to humans by insects or other organisms and can be difficult to control. VBD transmission involves a combination of interactions among multiple factors including animal hosts, vectors, and humans. Dynamic modeling methodologies used to describe infectious disease transmission processes are amenable to a situation when infection and interaction of ≥1 species, as is the case of VBD. This work demonstrates the use of such methodology for the example of malaria. **METHODS:** A dynamic, compartmental model was developed to simulate malarial disease transmission among the human and mosquito populations. The model consists of a mosquito population divided into susceptible, exposed but not infectious, and infectious and a human population including susceptible, exposed but not infectious, infectious but immune and infectious susceptible individuals. Parameters include human and mosquito birth rates and life expectancies, probabilities of disease transmission between humans and mosquitoes, and number of mosquito blood meals per day. The effect of anti-malarial treatment was modeled to assess epidemiologic outcomes under various scenarios. The model was solved analytically to determine the expected number of cases per person per year under each scenario. **RESULTS:** When transmission intensity is low, treatment of infected individuals with a therapy providing a subsequent 15-day period of immunity reduces the incidence of disease from 0.481 with no treatment to 0.475 cases per person per year (pppy). In moderate and very high transmission settings the incidence of disease is reduced from 2.385 to 2.171 cases pppy and 9.899 to 7.007 cases pppy, respectively. **CONCLUSIONS:** This model demonstrates the utility of dynamic modeling methodology to examine the spread of VBD. Several model parameters may be varied to assess the epidemiologic impact of a number of treatments and vector control mechanisms. These models may be expanded for cost-effectiveness analysis.

PIN2
ALTERNATIVE HIGH LEVEL DISINFECTANTS TO PROCESSING FLEXIBLE ENDOSCOPES

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OBJECTIVES: Endoscopy is fundamental in different medical specialties, with increasing use. Endoscopes are expensive equipment, complex, thermo sensitive, delicate materials and submitted to high-level disinfection (HLD). The most commonly used disinfectant is glutaraldehyde (GLU) due to its high compatibility with the materials and low cost. However, evidence of toxicity to professionals and the identification of mycobacteria tolerant to GLU caused changes in Brazilian legislation on the issue, pressing health services to search for alternative desinfectants. Search for evidence on the effectiveness, toxicity and potential damage to endoscopes by alternative disinfectants to GLU available in the Brazilian market. **METHODS:** The study sample was semi-critical endoscopes flexible (digestive, respiratory and cystoscope), the intervention was HLD with peracetic acid (PA), Ortho-Phthalaldehyde (OP) and Electrolyzed Acid Water (EAW), compared to GLU, with outcomes HLD effectiveness, toxicity and damage to equipment. **RESULTS:** Were identified 822 publications (2008-2013) on 13 databases, 23 studies were selected considering the best quality of available evidence. As for effectiveness, the findings draw attention to the intrinsic resistance of subclass *Coccidia spp* to all evaluated disinfectants and acquired tolerance by GLU strain of *Mycobacterium massiliense*s which caused an outbreak of infection with more than 2000 cases in Brazil. About toxicity, the most frequently reported adverse events are colitis (no definitive causal relationship with the germicide used) and anaphylactic reactions by OP in cystoscopy. There is lack of published data on damage caused in endoscopes by the disinfectants; the few studies on the theme indicate the importance of adequate handling of equipment for conservation of its functionality. **CONCLUSIONS:** The publications show superiority of the PA and OP for efficacy in HLD. Only the OP clearly had adverse event related to their use. There is insufficient evidence in literature to assert the inferiority of some disinfectant for damage to equipment.

PIN3
BURDEN OF VARICELLA IN LATIN AMERICA: A SYSTEMATIC REVIEW AND CRITICAL ANALYSIS

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OBJECTIVES: Varicella is a common, vaccine-preventable illness with significant public health impact in Latin America (LA). This study aimed to review the epidemiology and economic burden of varicella, and to perform a critical analysis of available data in LA. **METHODS:** A comprehensive literature review was conducted in major databases and government websites to identify published data on epidemiology and economic burden of varicella in LA. Study data were extracted systematically including incidence rates, lifetime prevalence, mortality, type and rates of complications, as well as use of health care resources (hospitalizations, physician office visits, others) and both direct and indirect costs associated with varicella. Critical analyses of study quality and data availability are performed for each country. **RESULTS:** Published studies were identified from ten countries including Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Uruguay, and Venezuela. Annual incidence rates ranged from 20 per 100,000 in Uruguay up to 381 per 100,000 in Mexico. Incidence was highest among children <10 years of age, bearing increased utilization of healt health care resources. Bimodal seasonal patterns of varicella were reported in Argentina, Mexico and Uruguay. Most frequent complications among hospitalized patients were skin and soft tissue infections, respiratory infections and neurological complications. Patients hospitalized for varicella stayed generally between 1-5 days. Critical analysis suggested that most published studies had limitations including data representativeness and study design issues. Data gaps in the epidemiology and economic burden of varicella were also found on the country level. **CONCLUSIONS:** Currently there is limited information available on burden of varicella in Latin America, potentially due to the lack of mandatory reporting and active surveillance systems for varicella in the region. Country-specific epidemiological information and varicella-related health care resource utilization data are needed to elucidate the disease burden for developing appropriate immunization recommendations and informing decision makers about the value of varicella vaccination.

INFECTION – Cost Studies

PIN4
COSTS AND OUTCOMES ASSOCIATED WITH MULTIDRUG RESISTANT STAPHYLOCOCCUS AUREUS BACTEREMIA

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OBJECTIVES: There is a dearth of studies in India that quantifies the impact of multidrug resistance on key economic and clinical outcomes. The aim of this retrospective cohort study was to determine the costs of treatment and evaluate the clinical outcomes in patients suffering from multidrug resistant (MDR) *Staphylococcus aureus* bacteremia and compare these with the costs and clinical outcomes of patients suffering from non-MDR *S. aureus*bacteremia. **METHODS:** Data was collected from 2007 through October 2010 from a private tertiary care hospital in India. Multidrug resistance was defined as resistance to ≥3 classes of antimicrobial drugs. Resistance within a class was defined as resistance to ≥1 antimicrobial agent. **RESULTS:** A total of 42 cases were included in the study of which 19 belonged to the MDR cohort and 23 to the non-MDR cohort The total mean cost for treating patients in the MDR cohort was 1.35 times higher compared to the non-MDR cohort (INR 230,000 [170,000-623,000] versus INR 171,000 [91,000-310,000]; P = 0.049). Death was reported in similar number of patients in both the groups (5 patients and 4 patients in the MDR cohort and non-MDR cohort, respectively). The number of deaths attributable to sepsis was also similar between the groups (16% vs. 13%). The total mean length of stay in hospital was significantly longer for the MDR cohort compared with non-MDR cohort (19 days [16-28] vs. 14 days [9.2-18.5]; P = .024). However, after the onset of bacteremia, the difference in the length of stay between the groups was not statistically significant (16 days [14-21] vs. 11 days [8-15.5]; P = 0.12). **CONCLUSIONS:** Multidrug resistance in *S. aureus* bacteremia was associated with a significant increase in hospital costs.

PIN5
COSTOS ECONÓMICOS ASOCIADOS A SECUELAS DE MENINGITIS EN COLOMBIA

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OBJECTIVOS: Estimar los costos económicos asociados al tratamiento de secuelas de meningitis en una serie de casos en Colombia. **METODOLOGÍAS:** De la base de datos de 253 pacientes atendidos entre 2009 y 2012 en una institución de rehabilitación ubicada en Cartagena de indias Colombia, se identificaron 37 diagnóstico de meningitis bacteriana y entre estos se confirmaron 19 casos de secuelas. De estos, se microcostearon 13 pacientes con secuelas asociadas a un episodio de meningitis meningocócica verificada por pruebas de laboratorio. Las perspectivas del costeo fueron del sistema de salud y la sociedad. En la primerara se consideraron todos los costos médicos directos originados durante el primer año de tratamiento de la secuela y en los años subsiguientes. En la perspectiva social, adicionalmente se consideraron la compra de órtesis y prótesis, adecuaciones del hogar, gastos de transporte y perdida de de productividad, cuando el cuidador tuvo que abandonar el trabajo para asistir al paciente. Los costos se expresaron en US dólares de 2012 (Tasa de cambio 31 dic 2012 1 USD por COP$ 1768.23). **RESULTADOS:** De los 13 pacientes considerados, 5 tenían secuelas de retardo psicomotor, cuatro de hipoacusia neurosensorial, tres de epilepsia y un trastorno del comportamiento. Desde la perspectiva del sistema de salud, los costos directos de tratamiento para el primer año y cada año subsiguiente fueron US$ 3,106.27 (IC95%: 454.5 – 5,758.0) y US$ 496.1 (IC95%: 449.2 - 509.3); desde la perspectiva social fueron US$ 4,647.1 (IC95%: 4,183.8 – 5,082.3)